

DESCRIPTION OF THE UNIFIED WATERSHED ASSESSMENT PROCESS IN GEORGIA

In July, the Chief of Georgia's Water Protection Branch, with the Georgia Environmental Protection Division, and the State Conservationist, of the Natural Resources Conservation Service, convened this process. The Executive Director of the Georgia Soil and Water Conservation Commission was also asked to assist in leading this effort. The leadership from these three agencies established a Technical Working Team to collaborate in the development Georgia's Unified Watershed Assessment.

Public participation was sought and engaged throughout this process. Feedback received through this interaction has been incorporated into the UWA. Stakeholders representing a variety of interests were identified and invited to a stakeholder meeting on August 6th, at which they were presented general information and guidance on the UWA. They were also asked to provide input on resource data to be utilized and criteria for ranking. A general consensus among participants suggested the following resource data be utilized: documented water quality impairments [305{b}]; documented resource concerns and issues identified at the local level [Local Work Group Proposals]; documented threatened and endangered species data; and protection of drinking source water intakes. The ranking criteria uses a composite index which was developed to evaluate each of these four resource data elements based on magnitude of impairment or need for protection. [Ranking Methodology, Criteria, and Results are attached]. In addition to the ranking criteria, the UWA incorporates a Georgia General Assembly mandate that EPD manage the natural resources of this State using a River Basin approach. This UWA groups each of Georgia's 52 8-digit watersheds into EPD's River Basin Groupings to ensure consistency with future resource data collection and restoration activities under this program.

Based on feedback received during that August 6th meeting, a "Proposed UWA" was developed and made available for a 30-day public review and comment period beginning August 21, 1998 and ending September 21, 1998. The Proposed UWA was distributed via Public Notice 98-17 from the Georgia Environmental Protection Division [EPD]. This public notice was advertised in the Atlanta Journal/Constitution, placed on EPD's Internet Web Page, and mailed to over 870 stakeholders across the State.

Between August 21, 1998 and September 21, 1998 comments were accepted in writing, through email, over the phone, and during personal contacts. Collectively, EPD, the Natural Resources Conservation Service, and the Georgia Soil and Water Conservation Commission recorded 11 comments. Most comments represented support for, or concurrence with, the Proposed UWA. A couple of comments asked for clarification of the Proposed UWA components, a couple of comments offered suggestions for future UWA iterations, and one comment expressed concern over the lack of terrestrial and plant threatened and endangered species as a resource data element.

Georgia's Unified Watershed Assessment

Methodology

This being the initial attempt to identify priority watersheds across the country, a federal framework describing general approaches, including the stipulation that 8-digit watersheds be used, was provided. However, a detailed methodology for identifying priority watersheds in Georgia had to be developed. The following methodology resulted in 17 of Georgia's 52 watersheds being identified as priorities for restoration:

Step 1 Resource Data – Four groupings of resource data elements, which most affect water quality, were selected:

Documented Impaired Stream Segment Data¹
Local Work Group [LWG] Proposal Scores²
Surface Water Intake Data
Threatened and Endangered [T&E] Species Data

Step 2 Ranking Criteria - A ranking scheme to indicate the influence of the above resource data elements was developed. Each resource data element was assigned a maximum number of points based on feedback from interested federal, state, local, and private stakeholders. The cumulative maximum for all resource data elements was 100 points.

Step 3 Ranking Results - A matrix was developed to determine a composite index, which reflected the relative intensity of all resource data element groupings for each 8-digit watershed.

Step 4 Identify Priority Watersheds - Priority watersheds were selected in a manner that would maintain consistency with Georgia's River Basin Management Plan [RBMP]. Five river basin groupings [attached] allowed 8-digit basins to be assessed with relative equity. The top three watersheds in each basin grouping were selected as priority watersheds.³

Attached material:

- A. Ranking Criteria
- B. Ranking Results
- C. Georgia River Basin Groupings Map
- D. Unified Watershed Assessment Map

1 - Documented water quality impairments as published in the 1994-95 305(b) Report: Water Quality in Georgia 1994-95.

2 - Local Work Group Proposal Scores - Local interagency [public and private] groups annually develop proposals for US Department of Agriculture funding [i.e. EQIP] to address local resource issues and concerns. These proposals are considered as documentation of resource issues and concerns at the grassroots level. A State Technical Committee reviews and evaluates [scores] the proposals annually.

3 - Coosa/Tallapoosa/Tennessee Basins had five priority watersheds because three watersheds had the same composite index.

Resource Data Elements Influence

| <u>Element</u> | <u>Points</u> |
|---------------------------------|---------------|
| Impaired Streams Segments | 31 |
| Local Work Group Proposals | 23 |
| Source Water Intakes | 23 |
| Threatened & Endangered Species | 23 |
| TOTAL | 100 |

100 Points Maximum**Resource Data Element Breakdown****Total Impaired Percent [31 Points Maximum]**

| | |
|-------------|--------------|
| 0 Miles | 0 Points |
| 1-4 Percent | 10.33 Points |
| 4-8 Percent | 20.66 Points |
| 8+ Percent | 31 Points |

Comment:

Total Impaired Percent =
The percent of impaired miles in relation
to all stream miles in each 8-digit watershed

LWG Proposals [23 Points Maximum]

| | |
|-------------|--------------|
| 0 Submitted | 0 Points |
| 1-48 Score | 7.66 Points |
| 49-62 Score | 15.33 Points |
| 62+ Score | 23 Points |

Comment:

Scores based on review of proposals
by NRCS State Technical Committee

Source Water [23 Points Maximum]

| | |
|-------------|--------------|
| 0 Intakes | 0 Points |
| 1-2 Intakes | 7.66 Points |
| 3-5 Intakes | 15.33 Points |
| 6+ Intakes | 23 Points |

Comment:

None

T & E Species [23 Points Maximum]

| | |
|-------------|--------------|
| 0 Species | 0 Points |
| 1-5 Species | 7.66 Points |
| 6-9 Species | 15.33 Points |
| 10+ Species | 23 Points |

Comment:

None

LWG - Local Work Group

T & E - Threatened and Endangered

**Georgia's Unified Watershed Assessment
Top Category I Watersheds**

| <u>River Basin Grouping</u> | <u>Watershed</u> | <u>8-Digit Number</u> |
|--|-------------------------|------------------------------|
| Coosa/Tallapoosa/Tennessee Basins | Conasauga | 03150101 |
| | Etowah | 03150104 |
| | Tallapoosa | 03150108 |
| | Oostanaula | 03150103 |
| | Coosawatee | 03150102 |
| Chattahoochee/Flint Basins | Upper Chattahoochee | 03130001 |
| | Upper Flint | 03130005 |
| | Upper Middle Chatt. | 03130002 |
| Ochlocknee/Satilla/St. Mary's/Suwannee Basins | Upper Ochlocknee | 03120002 |
| | Alapaha | 03110202 |
| | Satilla | 03070201 |
| Altamaha/Ocmulgee/Oconee Basins | Upper Oconee | 03070101 |
| | Upper Ocmulgee | 03070103 |
| | Ocmulgee | 03070104 |
| Ogeechee/Savannah Basins | Broad River | 03060104 |
| | Lower Savannah | 03060109 |
| | Tugaloo River | 03060102 |

COOSA/TALLAPOOSA/TENNESSEE BASINS

| UWA HUC UNIT NO. | WATERSHED | 8 DIGIT NO. |
|---------------------|-------------|----------------|
| 8 | ETOWAH | 03150104 |
| 11 | CONASAUGA | 03150101 |
| 6 | TALLAPOOSA | 03150108 |
| 9 | OOSTANAULA | 03150103 |
| 10 | COOSAWATTEE | 03150102 |
| 7 | CHATTOOGA | 03150105 |
| 4 | CHICKAMAUGA | 06020001 |
| 3 | NOT.-HIAW. | 06020002 |
| 5 | L. TENN. | 06010202 |
| 2 | TOCCOA | 06020003 |
| 1 | FLAT ROCK | 06030001 |

| WATER QUALITY IMPAIRMENTS | LWG PROPOSAL SCORE | SWP INTAKES | T+E SPECIES NO. | COMPOSITE INDEX |
|---------------------------------|--------------------------|----------------|-----------------------|--------------------|
| 31.00 | 15.33 | 23.00 | 23.00 | 92.33 |
| 31.00 | 23.00 | 15.33 | 23.00 | 92.33 |
| 31.00 | 15.33 | 23.00 | 15.33 | 84.66 |
| 31.00 | 23.00 | 15.33 | 15.33 | 84.66 |
| 31.00 | 23.00 | 15.33 | 15.33 | 84.66 |
| 20.66 | 23.00 | 7.66 | 15.33 | 66.65 |
| 20.66 | 23.00 | 15.33 | 0.00 | 58.99 |
| 10.33 | 15.33 | 7.66 | 23.00 | 56.32 |
| 20.66 | 23.00 | 7.66 | 0.00 | 51.32 |
| 0.00 | 15.33 | 7.66 | 0.00 | 22.99 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

CHATTAHOOCHEE/FLINT BASINS

| UWA HUC UNIT NO. | WATERSHED | 8 DIGIT NO. |
|---------------------|------------------|----------------|
| 22 | UPPER CHATT. | 03130001 |
| 18 | UPPER FLINT | 03130005 |
| 21 | UP. MID. CHATT. | 03130002 |
| 14 | MUCKALEE | 03130007 |
| 13 | SPRING CREEK | 03130010 |
| 15 | LOWER FLINT | 03130008 |
| 16 | ICHAWAY. | 03130009 |
| 19 | LOWER CHATT. | 03130004 |
| 20 | LOW. MID. CHATT. | 03130003 |
| 17 | MIDDLE FLINT | 03130006 |
| 12 | FLORIDA | 03130011 |

| WATER QUALITY IMPAIRMENTS | LWG PROPOSAL SCORE | SWP INTAKES | T+E SPECIES NO. | COMPOSITE INDEX |
|---------------------------------|--------------------------|----------------|-----------------------|--------------------|
| 31.00 | 23.00 | 23.00 | 0.00 | 77.00 |
| 20.66 | 7.66 | 23.00 | 23.00 | 74.32 |
| 31.00 | 7.66 | 23.00 | 0.00 | 61.66 |
| 20.66 | 15.33 | 0.00 | 23.00 | 58.99 |
| 31.00 | 23.00 | 0.00 | 0.00 | 54.00 |
| 20.66 | 15.33 | 0.00 | 15.33 | 51.32 |
| 10.66 | 23.00 | 0.00 | 15.33 | 48.99 |
| 10.33 | 23.00 | 0.00 | 15.33 | 48.66 |
| 10.33 | 7.66 | 7.66 | 23.00 | 48.65 |
| 20.66 | 7.66 | 0.00 | 0.00 | 28.32 |
| 0.00 | 23.00 | 0.00 | 0.00 | 23.00 |

OCHLOCKNEE/SATILLA/ST. MARY'S/SUWANNEE/ BASINS

| UWA HUC UNIT NO. | WATERSHED | 8 DIGIT NO. |
|---------------------|----------------|----------------|
| 24 | UP. OCHLOCK. | 03120002 |
| 28 | ALAPAHA | 03110202 |
| 34 | SATILLA | 03070201 |
| 30 | AUCILLA | 03110103 |
| 31 | ST. MARYS | 03070204 |
| 27 | WITHLACOOCHIEE | 03110203 |
| 23 | MID. OCHLOCK. | 03120003 |
| 32 | TURTLE RIVER | 03070203 |
| 29 | SUWANNEE | 03110201 |
| 26 | LITTLE RIVER | 03110204 |
| 33 | LITTLE SATILLA | 03070202 |
| 25 | WARDIS CREEK | 03120001 |

| WATER QUALITY IMPAIRMENTS | LWG PROPOSAL SCORE | SWP INTAKES | T+E SPECIES NO. | COMPOSITE INDEX |
|---------------------------------|--------------------------|----------------|-----------------------|--------------------|
| 20.66 | 15.33 | 0.00 | 7.66 | 43.65 |
| 20.66 | 7.66 | 0.00 | 15.33 | 43.65 |
| 10.33 | 15.33 | 0.00 | 7.66 | 33.32 |
| 31.00 | 0.00 | 0.00 | 0.00 | 31.00 |
| 31.00 | 0.00 | 0.00 | 0.00 | 31.00 |
| 20.66 | 7.66 | 0.00 | 0.00 | 28.32 |
| 0.00 | 23.00 | 0.00 | 0.00 | 23.00 |
| 0.00 | 23.00 | 0.00 | 0.00 | 23.00 |
| 10.33 | 7.66 | 0.00 | 0.00 | 17.99 |
| 10.33 | 0.00 | 0.00 | 0.00 | 10.33 |
| 10.33 | 0.00 | 0.00 | 0.00 | 10.33 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

ALTAMAHA/OCMULGEE/OCONEE BASINS

| UWA HUC UNIT NO. | WATERSHED | 8 DIGIT NO. |
|---------------------|---------------|----------------|
| 41 | UPPER OCONEE | 03070101 |
| 39 | UP. OCMULGEE | 03070103 |
| 38 | OCMULGEE | 03070104 |
| 40 | OCONEE RIVER | 03070102 |
| 35 | OHOOPEE RIVER | 03070107 |
| 36 | ALTAMAHA | 03070106 |
| 37 | LOW. OCMULGEE | 03070105 |

| WATER QUALITY IMPAIRMENTS | LWG PROPOSAL SCORE | SWP INTAKES | T+E SPECIES NO. | COMPOSITE INDEX |
|---------------------------------|--------------------------|----------------|-----------------------|--------------------|
|---------------------------------|--------------------------|----------------|-----------------------|--------------------|

| | | | | |
|-------|-------|-------|-------|-------|
| 31.00 | 15.33 | 23.00 | 7.33 | 76.66 |
| 31.00 | 7.66 | 23.00 | 7.66 | 69.32 |
| 20.66 | 15.33 | 0.00 | 15.33 | 51.32 |
| 10.33 | 15.33 | 7.66 | 15.33 | 48.65 |
| 10.33 | 7.66 | 0.00 | 23.00 | 40.99 |
| 10.33 | 7.66 | 0.00 | 23.00 | 40.99 |
| 10.33 | 0.00 | 0.00 | 23.00 | 33.33 |

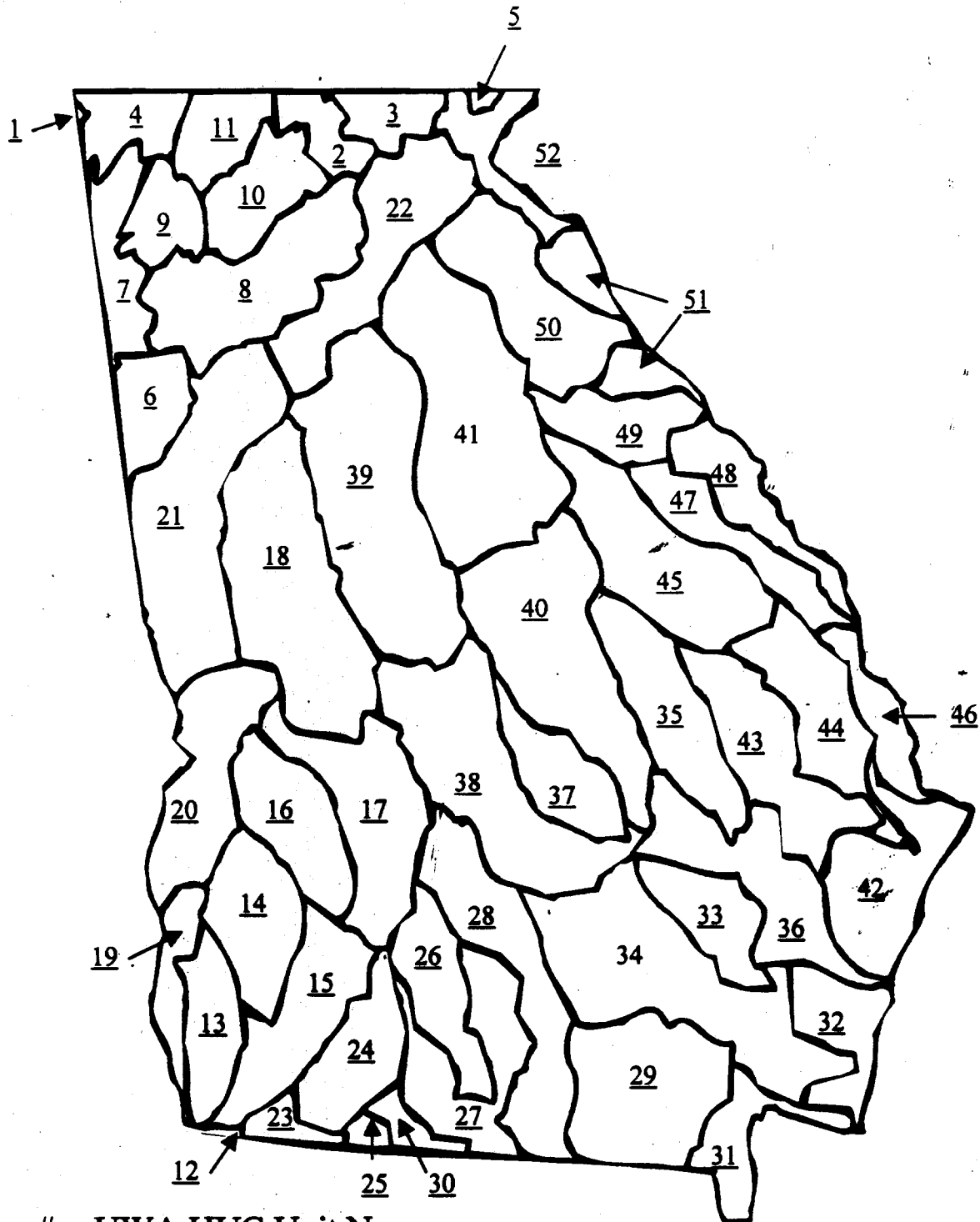
OGEECHEE/SAVANNAH BASINS

| UWA HUC UNIT NO. | WATERSHED | 8 DIGIT NO. |
|---------------------|----------------|----------------|
| 46 | LOW. SAVANNAH | 03080109 |
| 50 | BROAD RIVER | 03080104 |
| 52 | TUGALOO RIVER | 03080102 |
| 48 | MID. SAVANNAH | 03080106 |
| 49 | LITTLE RIVER | 03080105 |
| 45 | UP. OGEETCHEE | 03080201 |
| 51 | UP. SAVANNAH | 03080103 |
| 43 | CANOOCHIE | 03080203 |
| 44 | LOW. OGEETCHEE | 03080202 |
| 47 | BRIER CREEK | 03080108 |
| 42 | NEWPORT R. | 03080204 |

| WATER QUALITY IMPAIRMENTS | LWG PROPOSAL SCORE | SWP INTAKES | T+E SPECIES NO. | COMPOSITE INDEX |
|---------------------------------|--------------------------|----------------|-----------------------|--------------------|
|---------------------------------|--------------------------|----------------|-----------------------|--------------------|

| | | | | |
|-------|-------|-------|-------|-------|
| 31.00 | 23.00 | 7.66 | 0.00 | 61.66 |
| 31.00 | 15.33 | 15.33 | 0.00 | 61.66 |
| 31.00 | 15.33 | 15.33 | 0.00 | 61.66 |
| 20.66 | 7.66 | 15.33 | 15.33 | 58.98 |
| 10.33 | 23.00 | 23.00 | 0.00 | 56.33 |
| 10.33 | 15.33 | 7.66 | 7.66 | 40.98 |
| 10.33 | 7.66 | 15.33 | 0.00 | 33.32 |
| 20.66 | 7.66 | 0.00 | 0.00 | 28.32 |
| 10.33 | 15.33 | 0.00 | 0.00 | 25.66 |
| 10.33 | 7.66 | 7.66 | 0.00 | 25.65 |
| 0.00 | 23.00 | 0.00 | 0.00 | 23.00 |

Unified Watershed Assessment 8-Digit HUC Units Georgia



= UWA HUC Unit No.

Unified Watershed Assessment Georgia River Basin Management Planning Groupings

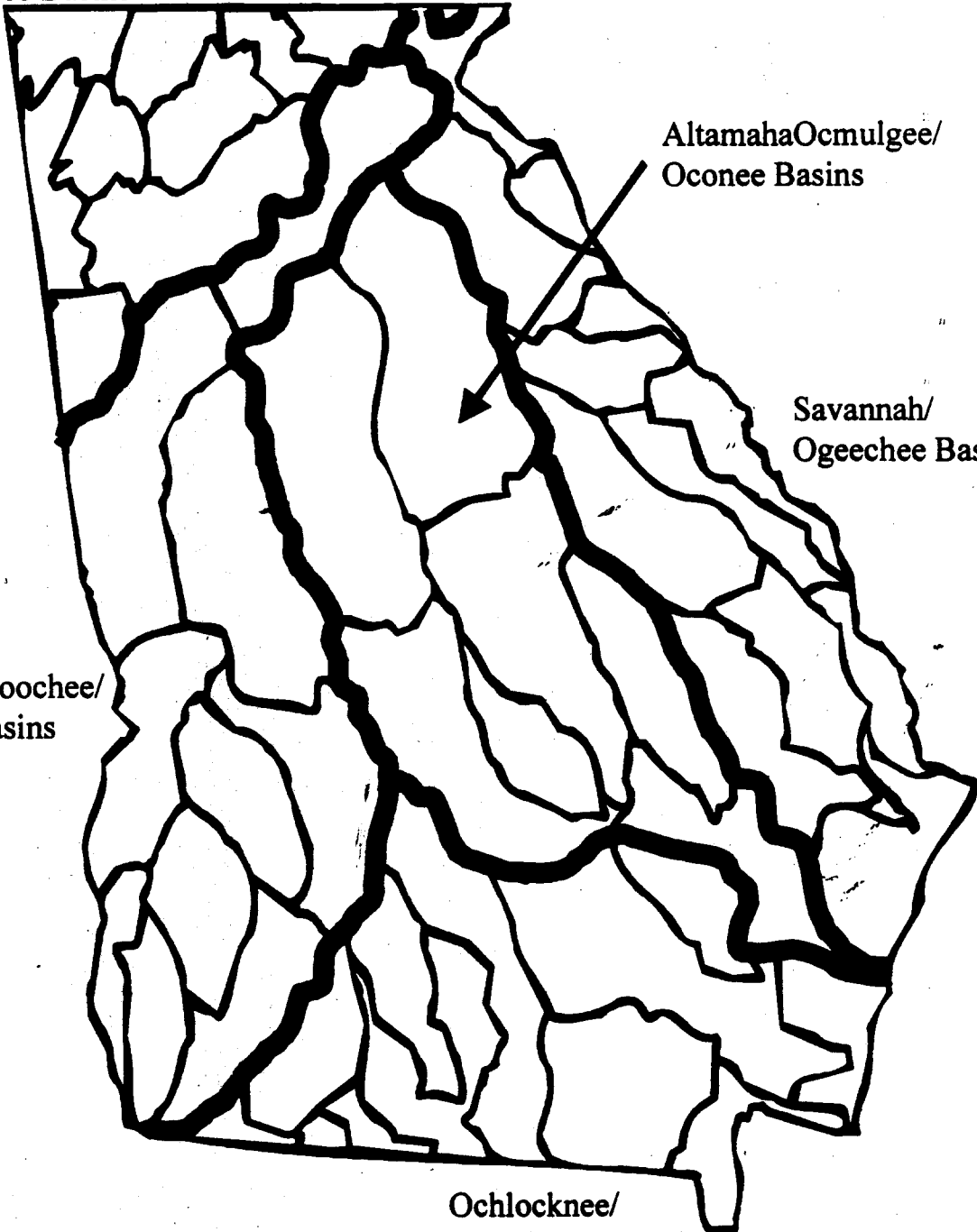
Coosa/Tallapoosa/
Tennessee Basins

Altamaha/Ocmulgee/
Oconee Basins

Savannah/
Ogeechee Basins

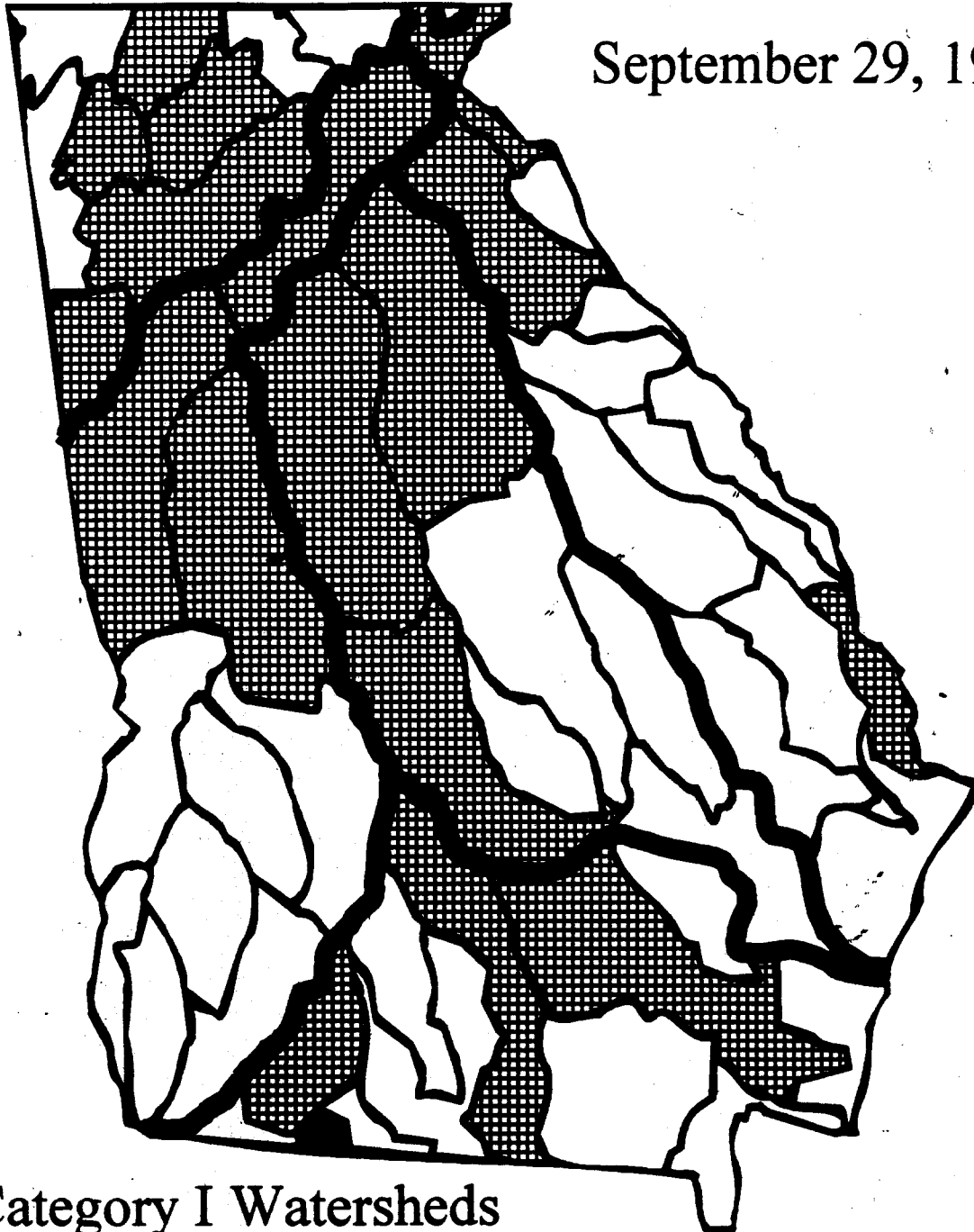
Chattahoochee/
Flint Basins

Ochlocknee/
Satailla/St. Mary's/
Suwannee Basins



Unified Watershed Assessment Georgia

September 29, 1998



- ▣ Category I Watersheds
- Category II Watersheds
- Category IV Watersheds

Georgia's Unified Watershed Assessment Preliminary Schedule for Restoration Activities

Summary guidance from the US Environmental Protection Agency, and dated June 9, 1998, directs states and tribes to take the lead in developing and implementing restoration watershed restoration action strategies to restore the health of those watersheds in need of attention beginning in Fall 1998. The specific process will be developed at the state level. It may include current priority setting mechanisms like the priority rankings of impaired waters under section 303[d] of the Clean Water Act, the State Technical Committee Established by USDA, source water protection priorities under the Safe Drinking Water Act, national estuary program priorities, and EPD's River Basin Management Program [RBMP] among others. Prior to the development of Georgia's specific watershed restoration activities, the Georgia Environmental Protection Division, the Natural Resources Conservation Service, the Georgia Soil and Water Conservation Commission, and others will continually encourage projects and activities that will lead to water quality improvements.

The Georgia Environmental Protection Division [EPD] is encouraging units of government with source water intakes to conduct watershed assessments. EPD will also require local governments to develop and implement watershed protection plans for new and reissued withdrawal permits above those drinking water supplies, as required by the Safe Drinking Water Act and Georgia Rules for Environmental Planning Criteria [Chapter 391-3-16.01]. This will promote a number of opportunities for local groups to collaborate for the planning and implementation of restoration activities that ensure safe drinking water. In fact, EPD is directly involved in two pilot projects [Yahoola Creek and Alcovy River] that are bringing together non-traditional partners for this very purpose. Additionally, the Association of County Commissioners of Georgia and the Georgia Municipal Association are coalescing to form the Georgia Water Campaign serving as a forum for information exchange on these natural resource issues. Many of the watershed assessments required by the Safe Drinking Water Act will be conducted over the next two years in the remaining Category I Watersheds.

The Natural Resources Conservation Service [NRCS] and the Georgia Soil and Water Conservation Commission [GSWCC] will continue to administer USDA programs that provide restoration activities in these watersheds as well. Specifically, Local Work Groups will continue to convene and identify resource concerns and develop proposals for resources that will fund a number of projects designed to improve water quality, reduce soil erosion, and improve fish and wildlife habitats. A significant portion of these resources will be directed into Category I Watersheds prior to EPD's RBMP implementation schedule. Local Work Group proposals are developed annually and submitted for USDA technical, educational, and financial resources; which are administered on an annual basis as well. NRCS and GSWCC are also involved in a number of area wide planning activities that is fostering interagency coordination and cooperation to address natural resource issues that will improve water quality [i.e. TMDL Development, Lake Lanier Water Quality Assessment, Eco-Region Mapping Project, etc.].

Georgia's UWA is not just an EPD and NRCS/GSWCC process. This UWA also serves as a basis for other natural resource management agencies and interest groups across the state to come together and leverage their resources to affect changes that will improve water quality. The US Fish and Wildlife Service, Georgia Wildlife Resources Division, US Environmental Protection Agency, Partners in Flight, Georgia Conservation Tillage Alliance, Upper Chattahoochee River Keepers, Association of County Commissioners of Georgia, Georgia Municipal Association, and others have all participated in this process. They have the capability of jointly developing projects that can result in water quality improvements in Category I Watersheds.